

STATE OF IOWA  
DEPARTMENT OF COMMERCE  
UTILITIES BOARD

IN RE:  ALTERNATE ENERGY PRODUCTION	DOCKET NO. RMU-03-4
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**ORDER ADOPTING RULES**

(Issued June 27, 2003)

Pursuant to the authority of Iowa Code §§ 17A.4, 476.1, 476.8, 476.41 to 476.45, Section 210 of the Public Utility Regulatory Policies Act of 1978 (PURPA), and 18 CFR Part 292, the Utilities Board (Board) adopts the rules attached hereto and incorporated by reference. These rules amend 199 IAC chapters 15 and 20. The amendments are in response to Executive Orders 8 and 9 and simplify and clarify the rules relating to alternate energy production.

The purpose of 199 IAC chapter 15 is to implement federal and state law governing purchase and sale transactions between electric utilities and independent power producers that qualify as cogeneration, small power production and alternate energy production (AEP). The chapter has been generally effective in establishing utility rates and procedures for cogeneration, small power production, and AEP and generally fulfilling the utilities' 105 MW AEP purchase obligation under Iowa Code §§ 476.43 and 476.44.

Chapter 15 was originally adopted in 1981 to implement Section 210 of PURPA. This federal statute requires electric utilities to interconnect and purchase electricity from non-utility cogenerators and small power producers at rates based on

utility avoided costs. The rules were augmented with additional rules in 1984 to implement Iowa Code §§ 476.41 to 476.45, encouraging the development of AEP through incentive purchase rates, which were higher than the avoided cost rates available under PURPA. The AEP rules were amended in 1991 and 1993 to implement changes in Iowa Code §§ 476.41 to 476.45, and again in 1994 to reflect changes in engineering standards.

In 1997, the Federal Energy Regulatory Commission (FERC) ruled that the AEP incentive purchase rates were preempted by federal law to the extent the incentive rates exceeded utility avoided costs. However, FERC also ruled that the Board could require utilities to purchase AEP under the state statute. Chapter 15 has since been enforced on this basis, although not yet revised to reflect the change. Originally, the main difference in treatment of AEP and PURPA small power production was in the mandated incentive rates for AEP. Following the FERC decision, only a few differences remain. These can be condensed into a single rule section describing the additional requirements for AEP. AEP definitions can also be simplified and clarified.

Because the Board can no longer use mandated incentive rates for AEP purchases, the rules that focus on setting the incentive rate can be eliminated and replaced with rules that focus on compliance with the statutory purchase requirements. The changes will make the rules consistent with current policy and practice. The current policy has been successful because it has resulted in AEP purchases, largely through the solicitation of competitive bids, that fulfilled the utilities'

statutory purchase obligation at a lower cost than under the Board's mandated AEP incentive rate approach.

The Consumer Advocate Division of the Department of Justice, Interstate Power and Light Company (IPL), MidAmerican Energy Company (MidAmerican), and the Iowa Association of Electric Cooperatives filed written comments. An oral presentation was held on May 16, 2003.

Pursuant to MidAmerican's suggestion, the rules have been clarified to clearly state that rules 15.6 through 15.9 apply both to AEPs and qualifying facilities (QFs) under PURPA. The Board will not, however, adopt IPL's suggestion that rule 15.11 only apply to a utility's statutory AEP purchase obligation pursuant to Iowa Code §§ 476.41 through 476.44. The rule also applies to renewable-based PURPA QFs that meet the definition of AEP. Under PURPA, utilities have an open-ended obligation to purchase from QFs independent of the Iowa statutory requirements.

Subrule 15.11(3) will be clarified to indicate that the MW capacity amounts referred to are nameplate capacities. Otherwise, no changes to 15.11 will be made. Contrary to MidAmerican's assertions, the information required is not redundant. While some of the information is on the FERC Form 1, it is included with other power purchase information, making it difficult to use. IPL said average hourly purchases should be included in the filing. While the Board will not require this information, a utility may file any additional information it chooses with its report.

Pursuant to MidAmerican's suggestion, changes will be made to rule 15.10, adopting the IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems—IEEE 519-1992, which allows elimination of the older

modification of ANSI C50.10 specified in 15.10(2). Also, an unused and outdated notification requirement will be deleted from 15.10(6).

No changes will be made to rule 15.11(5), which deals with net metering. While IPL and MidAmerican proposed changes and made various policy arguments regarding the proposed changes, a debate over net metering should be reserved for a different forum. All the stakeholder groups interested in this issue did not participate in this rule making because the notice of rule making was limited to clarification changes and to make the rules consistent with current Board policy and practice.

**IT IS THEREFORE ORDERED:**

1. A rule making proceeding, identified as Docket No. RMU-03-4, is adopted.
2. The Executive Secretary is directed to submit for publication in the Iowa Administrative Bulletin a notice in the form attached to and incorporated by reference in this order.

**UTILITIES BOARD**

/s/ Diane Munns

/s/ Mark O. Lambert

ATTEST:

/s/ Judi K. Cooper  
Executive Secretary

/s/ Elliott Smith

Dated at Des Moines, Iowa, this 27<sup>th</sup> day of June, 2003.

## **UTILITIES DIVISION [199]**

### **Adopted and Filed**

Pursuant to Iowa Code sections 17A.4, 476.1, 476.8, and 476.41 to 476.45, Section 210 of the Public Utility Regulatory Policies Act of 1978, and 18 CFR Part 292, the Utilities Board (Board) gives notice that on June 27, 2003, the Board issued an order in Docket No. RMU-03-4, In re: Alternate Energy Production, "Order Adopting Rules." The Board is adopting revisions to 199 IAC 15 and 199 IAC 20.9(2)"b"(6) in response to Governor Vilsack's Executive Orders 8 and 9 and to simplify and clarify the rules related to alternate energy production.

On February 12, 2003, the Board issued an order in Docket No. RMU-03-4 to consider the amendments. Notice of Intended Action for the proposed rule making was published in IAB Vol. XXV, No. 18 (3/5/03), p. 1207, ARC 2329B. The Consumer Advocate Division of the Department of Justice, Interstate Power and Light Company (IPL), and MidAmerican Energy Company (MidAmerican) filed initial written comments. An oral presentation was held on May 16, 2003. IPL supplemented its written comments after the oral presentation and the Iowa Association of Electric Cooperatives filed a reply to some of the comments filed by IPL and MidAmerican.

The Board will not detail here the reasons for adopting the rules because those reasons have been delineated in the Board's order referred to above. This order is available at the Board's website, <http://www.state.ia.us/iub>. This order is

also available in hard copy for review or purchase at the Board's Records Center, 350 Maple Street, Des Moines, Iowa 50319-0069; telephone (515)281-5563.

The changes to the noticed rules are in response to the comments or are minor, such that the Board believes no additional notice is required. There is no specific waiver provision in the adopted rules because the Board's general waiver rule, 199 IAC 1.3 (17A, 474, 476, 78GA, HF 2206), is applicable to these rules.

These amendments are intended to implement Iowa Code sections 476.1, 476.8, and 476.41 to 476.45, Section 210 of the Public Utility Regulatory Policies Act of 1978, and 18 CFR Part 292. The amendments will become effective August 27, 2003.

The following amendments are adopted.

Item 1. Amend rule 199—15.1(476) as follows:

**199—15.1(476) Definitions.** Terms defined in the Public Utility Regulatory Policies Act of 1978 (PURPA), 16 U.S.C. 2601, et seq., shall have the same meaning for purposes of these rules as they have under PURPA, unless further defined in this chapter.

“AEP facility” means any of the following: (1) an electric production facility which derives 75 percent or more of its energy input from solar energy, wind, waste management, resource recovery, refuse-derived fuel, agricultural crops or residues, or wood burning; (2) a hydroelectric facility at a dam; (3) land, systems, buildings, or improvements that are located at the project site and are necessary or convenient to the construction, completion, or operation of the facility; or (4) transmission or

distribution facilities necessary to conduct the energy produced by the facility to the purchasing utility.

“Avoided costs” means the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source.

“Back-up power” means electric energy or capacity supplied by an electric utility to qualifying facilities and AEP facilities to replace energy ordinarily generated by a facility’s own generation equipment during an unscheduled outage of the facility.

“Board” means the Iowa utilities board.

“Interconnection costs” means the reasonable costs of connection, switching, metering, transmission, distribution, safety provisions and administrative costs incurred by the electric utility directly related to the installation and maintenance of the physical facilities necessary to permit interconnected operations with a qualifying ~~facility~~ facilities and AEP facilities, to the extent the costs are in excess of the corresponding costs which the electric utility would have incurred if it had not engaged in interconnected operations, but instead generated an equivalent amount of electric energy itself or purchased an equivalent amount of electric energy or capacity from other sources. Interconnection costs do not include any costs included in the calculation of avoided costs.

“Interruptible power” means electric energy or capacity supplied by an electric utility subject to interruption by the electric utility under specified conditions.

~~“Maintenance power” means electric energy or capacity supplied by an electric utility during scheduled outages of the qualifying facility facilities and AEP facilities.~~

~~“Next generating plant” means the utility’s assumed next coal-fired base load electric generating plant, whether currently planned or not, based on current technology and undiscounted current cost.~~

~~“Purchase” means the purchase of electric energy or capacity or both from a qualifying facility facilities and AEP facilities by an electric utility.~~

~~“Qualifying alternate energy production facility” means any of the following:~~

~~1. An electric production facility which derives 75 percent or more of its energy input from solar energy, wind, waste management, resource recovery, refuse-derived fuel, agricultural crops or residues, or wood burning;~~

~~2. Land, systems, buildings, or improvements that are located at the project site and are necessary or convenient to the construction, completion, or operation of the facility; or~~

~~3. Transmission or distribution facilities necessary to conduct the energy produced by the facility to the purchasing utility.~~

~~A facility which is a qualifying facility under 18 CFR Part 292, Subpart B, is not precluded from being an alternate energy production facility.~~

~~“Qualifying facility” means a cogeneration facility or a small power production facility which is a qualifying facility under 18 CFR Part 292, Subpart B.~~

~~“Qualifying small hydro facility” means any of the following:~~

~~1. A hydroelectric facility at a dam;~~



~~2. Land, systems, buildings, or improvements that are located at the project site and are necessary or convenient to the construction, completion or operation of the facility; or~~

~~3. Transmission or distribution facilities necessary to conduct the energy produced by the facility to the purchasing utility.~~

~~A facility which is a qualifying facility under 18 CFR Part 292, Subpart B, is not precluded from being a small hydro facility.~~

“Rate” means any price, rate, charge, or classification made, demanded, observed or received with respect to the sale or purchase of electric energy or capacity, or any rule, regulation, or practice respecting any rate, charge, or classification, and any contract pertaining to the sale or purchase of electric energy or capacity.

“Sale” means the sale of electric energy or capacity or both by an electric utility to ~~a qualifying facility~~ facilities and AEP facilities.

“Supplementary power” means electric energy or capacity supplied by an electric utility, regularly used by ~~a qualifying facility~~ facilities and AEP facilities in addition to that which the facility generates itself.

“System emergency” means a condition on a utility’s system which is likely to result in imminent significant disruption of service to customers or is imminently likely to endanger life or property.

Item 2. Amend rule 199—15.2(476) as follows:

**199—15.2(476) Scope.**

**15.2(1)** Applicability.

a. Subrule 15.2(2) and ~~rules 199—15.3(476) and rule 199—15.10(476)~~ of this chapter apply to all electric utilities, ~~and to all qualifying facilities, all qualifying alternate energy production facilities, and all qualifying small hydro~~ and all AEP facilities.

b. Rule 199—15.3(476) of this chapter applies to electric utilities which are subject to rate regulation by the board.

~~b.c.~~ Rules 199—15.4(476) to 199—15.59(476) of this chapter apply ~~only to the regulation of sales and purchases between~~ qualifying facilities and electric utilities which are subject to rate regulation by the board.

d. Rules 199-15.6(476) to 15.9(476) of this chapter apply to all qualifying facilities and AEP facilities, and electric utilities which are subject to rate regulation by the board.

~~c.e.~~ Rule 199—15.11(476) to 199—15.16(476) of this chapter lists additional requirements that apply ~~only to the regulation of sales and purchases between qualifying alternate energy production or small hydro~~ AEP facilities, and electric utilities which are subject to rate regulation by the board, pursuant to Iowa Code sections 476.41 to 476.45.

**15.2(2)** Negotiated rates or terms. These rules do not:

a. Limit the authority of any electric utility, any qualifying facility, ~~any qualifying alternate energy production facility, or any qualifying small hydro~~ AEP facility to agree to a rate for any purchase, or terms or conditions relating to any purchase, which differ from the rate or terms or conditions which would otherwise be required by these rules; or

b. Affect the validity of any contract entered into between an electric utility and either a qualifying facility, ~~a qualifying alternate energy production facility~~, or a ~~qualifying small hydro~~ AEP facility, for any purchase.

Item 3. Amend rule 199—15.3(476) as follows:

**199—15.3(476) Information to board.** In addition to the information required to be supplied to the board under 18 CFR 292.302, all rate-regulated electric utilities shall supply to the board copies of contracts executed for the purchase or sale, for resale, of energy or capacity. If the purchases or sales are made other than pursuant to the terms of a written contract, then information as to the relevant prices and conditions shall be supplied to the board. All information required to be supplied under this rule shall be filed with the board by May 1 and November 1 of each year, for all transactions occurring since the last filing was made.

Item 4. Amend rules 15.6 through 15.9 as follows:

**199—15.6(476) Rates for sales to qualifying facilities and AEP facilities by rate-regulated utilities.** For purposes of this rule, “utility” means a rate-regulated electric utility. Rates for sales to qualifying facilities and AEP facilities shall be just, reasonable and in the public interest, and shall not discriminate against the qualifying facility facilities and AEP facilities in comparison to rates for sales to other customers with similar load or other cost-related characteristics served by the utility. The rate for sales of back-up or maintenance power shall not be based upon an assumption (unless supported by data) that forced outages or other reductions in electric output by all qualifying facilities and AEP facilities will occur simultaneously or during the system peak, or both, and shall

take into account the extent to which scheduled outages of ~~the qualifying facility~~ facilities and AEP facilities can be usefully coordinated with scheduled outages of the utility's facilities.

**199—15.7(476) Additional services to be provided to qualifying facilities and AEP facilities by rate-regulated electric utilities.** For purposes of this rule, “electric utility” or “utility” means a rate-regulated electric utility.

**15.7(1)** Upon request of a qualifying facility facilities and AEP facilities, each electric utility shall provide supplementary power, backup, maintenance power, and interruptible power. Rates for such service shall meet the requirements of subrule 15.5(6), and shall be in accordance with the terms of the utility's tariff.

The board may waive this requirement pursuant to rule 199—1.3(17A,474) only after notice in the area served by the utility and an opportunity for public comment. The waiver may be granted if compliance with this rule will:

- a. Impair the electric utility's ability to render adequate service to its customers, or
- b. Place an undue burden on the electric utility.

**15.7(2)** Reserved.

**199—15.8(476) Interconnection costs.** For purposes of this rule, “utility” means a rate-regulated electric utility.

**15.8(1)** Qualifying facilities and AEP facilities ~~Each qualifying facility~~ shall be obligated to pay any interconnection costs, as defined in this chapter. These costs shall be assessed on a nondiscriminatory basis with respect to other customers with similar load characteristics.

**15.8(2)** Utilities shall be reimbursed by ~~the qualifying facility~~ facilities and AEP facilities for interconnection costs at the time the costs are incurred. Upon petition by any party involved and for good cause shown, the board may allow for reimbursement of costs over a reasonable period of time and upon such conditions as the board may determine; provided, however, that no other customers of the utility shall bear any of the costs of interconnection.

**199—15.9(476) System emergencies.** For purposes of this rule, “electric utility” means a rate-regulated electric utility. Qualifying facilities and AEP facilities A ~~qualifying facility~~ shall be required to provide energy or capacity to an electric utility during a system emergency only to the extent:

**15.9(1)** Provided by agreement between the qualifying facility or AEP facility and the electric utility; or

**15.9(2)** Ordered under Section 202(c) of the Federal Power Act. During any system emergency, an electric utility may immediately discontinue:

a. Purchases from a qualifying facility facilities and AEP facilities if purchases would contribute to the emergency; and

b. Sales to a qualifying facility facilities and AEP facilities, provided that the discontinuance is on a nondiscriminatory basis.

Item 5. Amend rule 199—15.10(476) as follows:

**199—15.10(476) Standards for interconnection, safety, and operating reliability.** For purposes of this rule, “electric utility” or “utility” means both rate-regulated and non-rate-regulated electric utilities.

**15.10(1)** Acceptable standards. Qualifying facilities, ~~qualifying alternate energy production facilities,~~ and ~~qualifying small hydro~~ AEP facilities shall all meet the applicable provisions in the publications listed below in order to be eligible for interconnection to an electric utility system:

- a. General Requirements for Synchronous Machines, ANSI C50.10-1990.
- b. Requirements for Salient Pole Synchronous Generators and Condensers, ANSI C50.12-1982.
- c. Requirements for Cylindrical-Rotor Synchronous Generators, ANSI C50.13-~~1982~~1989.
- d. Requirements for Combustion Gas Turbine Driven Cylindrical-Rotor Synchronous Generators, ANSI C50.14-1977.
- e. Iowa Electrical Safety Code, as defined in 199—Chapter 25.
- f. National Electrical Code, ANSI/NFPA 70-2002.
- g. IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems—IEEE 519-1992.

For those facilities which are of such design as to not be subject to the standards noted in "a," "b," "c," and "d," above, data on the manufacturer, type of device, and output current wave form (at full load) and output voltage wave form (at no load and at full load) shall be submitted to the utility for review and approval prior to interconnection. A copy of the utility decision (whether approving or disapproving), including the data specified above and the exact location of the facility, shall be filed with the board within one week of the date of the decision. The utility decision, or its

failure to decide within a reasonable time, may be appealed to the board. The appeal shall be treated as a contested case proceeding.

**15.10(2) Reserved.** ~~Modifications required. The standards set forth in ANSI C50.10 are modified as follows:~~

~~a. Rule 8.1, “Maximum allowable deviation factor,” is modified to read: “The deviation factor of the open-circuit terminal voltage wave and the current wave at all loads shall not exceed 0.1. Deviation factor shall be as defined in ANSI C42.100-1972.”~~

**15.10(3)** Interconnection facilities. Interconnections between qualifying facilities (or ~~qualifying alternate energy production facilities, or qualifying small hydro~~ AEP facilities) and electric utility systems shall be equipped with devices, as set forth below, to protect either system from abnormalities or component failures that may occur within the facility or the electric utility system. Inclusion of the following protective systems shall be considered as a minimum standard of accepted good practice unless otherwise ordered by the board:

a. The interconnection must be provided with a switch that provides a visible break or opening. The switch must be capable of being padlocked in the open position.

b. The interconnection shall include overcurrent devices on the facility to automatically disconnect the facility at all currents that exceed the full-load current rating of the facility.

c. Facilities with a design capacity of 100 kilowatts or less must be equipped with automatic disconnection upon loss of electric utility-supplied voltage.

d. Those facilities that produce a terminal voltage prior to the closure of the interconnection shall be provided with synchronism-check devices to prevent closure of the interconnection under conditions other than a reasonable degree of synchronization between the voltages on each side of the interconnection switch.

**15.10(4)** Access. Both the operator of the qualifying facility (~~or qualifying alternate energy production facility, or qualifying small hydro~~ AEP facility) and the utility shall have access to the interconnection switch at all times.

**15.10(5)** Inspections. The operator of the qualifying facility (~~or qualifying alternate energy production facility, or qualifying small hydro~~ AEP facility) shall adopt a program of inspection of the generator and its appurtenances and the interconnection facilities in order to determine necessity for replacement and repair. Representatives of the utility shall have access at all reasonable hours to the interconnection equipment specified in subrule 15.10(3) for inspection and testing.

**15.10(6)** Emergency disconnection. In the event that an electric utility or its customers experience problems of a type that could be caused by the presence of alternating currents or voltages with a frequency higher than 60 Hertz, the utility shall be permitted to open and lock the interconnection switch pending a complete investigation of the problem. Where the utility believes the condition creates a hazard to the public or to property, the disconnection may be made without prior notice. However, the utility shall notify the operator of the qualifying facility (~~or qualifying alternate energy production facility, or qualifying small hydro~~ AEP facility) by written notice and, where possible, verbal notice as soon as practicable after the



~~disconnections; and shall notify the electric engineering section of the bureau of rate and safety evaluation of the board by the next working day.~~ If the facility and the utility are unable to agree on conditions for reconnection of the facility, a contested case proceeding to determine the conditions for reconnection may be commenced by the facility or the utility upon filing of a petition.

Item 6. Rescind rule 199—15.11(476) and adopt the following **new** rule in lieu thereof:

**199—15.11(476) Additional rate-regulated utility obligations regarding AEP facilities.** For purposes of this rule, “MW” means megawatt, “MWH” means megawatt-hour, and “utility” means a rate-regulated electric utility.

**15.11(1) Obligation to purchase from AEP facilities.** Each utility shall purchase, pursuant to contract, its share of at least 105 MW of AEP generating capacity and associated energy production. The utility’s share of 105 MW is based on the utility’s estimated percentage share of Iowa peak demand, which is based on the utility’s highest monthly peak shown in its 1990 FERC Form 1 annual report, and on its related Iowa sales and total company sales and losses shown in its 1990 FERC Form 1 and IE-1 annual reports. Each utility’s share of the 105 MW is determined to be as follows:

	Percentage Share of Iowa Peak	Utility Share of 105 MW
Interstate Power and Light	47.43%	49.8 MW
MidAmerican Energy	52.57%	55.2 MW

A utility is not required to purchase from an AEP facility that is not owned or operated by an individual, firm, co-partnership, corporation, company, association,

joint stock association, city, town, or county that meets both of the following: (1) is not primarily engaged in the business of producing or selling electricity, gas, or useful thermal energy other than electricity, gas, or useful thermal energy sold solely from AEP facilities; and (2) does not sell electricity, gas, or useful thermal energy to residential users other than the tenants or the owner or operator of the facility.

**15.11(2)** Purchases pursuant to a legally enforceable obligation. Each AEP facility shall provide electricity on a best-efforts basis pursuant to a legally enforceable obligation for the delivery of electricity over a specified contract term.

**15.11(3)** Annual reporting requirement. Beginning April 1, 2004, each utility shall file an annual report listing nameplate MW capacity and associated monthly MWH purchased from AEP facilities, itemized by AEP facility.

**15.11(4)** Tariff filings. The electric utility shall maintain a tariff schedule of standard AEP contract provisions offered. The initial tariffs and subsequent revisions shall be subject to board approval. Provisions of any individual AEP contract which differ from or exceed the utility tariff of standard AEP contract provisions shall also be subject to board approval, unless otherwise agreed upon by the individual AEP and utility.

**15.11(5)** Net metering. Each utility shall offer to operate in parallel through net metering (with a single meter monitoring only the net amount of electricity sold or purchased) with an AEP facility, provided that the facility complies with any applicable standards established in accordance with these rules.

In the alternative, by choice of the facility, the utility and facility shall operate in a purchase and sale arrangement whereby any electricity provided to the utility by the

AEP facility is sold to the utility at the fixed or negotiated buy-back rate, and any electricity provided to the AEP facility by the utility is sold to the facility at the tariffed rate.

Item 7. Rescind and reserve rules 199—15.12(476) through 199—15.16(476).

Item 8. Amend subparagraph 20.9(2)"b"(6) as follows:

(6) ~~Purchases of energy and capacity from qualifying alternate energy production facilities and qualifying small hydro~~ from AEP facilities, ~~at rates required~~ under 199—15.12 15.11(476).

June 27, 2003

/s/ Diane Munns

Diane Munns  
Chairman